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ABSTRACT

The Academic Orientation (AOR) scale of the Strong-Campbell Interest Inventory was evaluated regarding its usefulness in predicting academic achievement in college. Also, the AOR scores of 148 low, average, and high functioning college students were compared. Correlational analyses indicated that the AOR is quite inadequate for predicting either short-term or long-term academic performance in college. Additionally, no significant differences were found between the AOR scores of good, average, or poor students. (Author/RC)

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The Strong-Campbell's AOR Scale and Academic Achievement in College

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The Strong-Campbell's AOR Scale and Academic Achievement in College

The Strong-Campbell Interest Inventory (SCII) is a widely used test of vocational and academic interests. This instrument is basically a combination and revision of the male and female forms of the Strong Vocational Interest Blank (SVIB) into a single inventory [7]. The SVIB contained a non-occupational scale entitled the Academic Achievement scale, which was developed by Campbell and Johansson in 1966 to differentiate between high and low achievers at the University of Minnesota [3]. The Academic Achievement scale was not designed to be a good predictor of grades in high school or college, and with the development of the SCII, the scale's name was changed to Academic Orientation (AOR) to more accurately reflect the purpose of the scale, that being academic inclination or interest [7]. Johansson [7] points this idea out in the SCII Manual, but he does not really discourage the practice of utilizing the AOR to predict grade point averages.

The research dealing with the validity of the Academic Achievement scale, now the AOR, has been rather equivocal. Most of the research focuses on the relationship between college freshmen's academic achievement and pre-college entrance scores on the SVIB's Academic Achievement scale. Combs [4], Lee [8] and Johnson [6] all cite the Academic Achievement scale as a useful tool for predicting first year college achievement as denoted by grade point average. Campbell [2] outlined a 25-year follow-up study

which found that for a large validation sample the Academic Achievement scale was the best single predictor of college freshmen's grade point averages as compared to aptitude test scores and high school rank.

Studies by Lindsay and Althouse [9] and Brasington [1] were not so favorable concerning the usefulness of the Academic Achievement scale. Brasington reported that the SVIB Academic Achievement scale contributed little to the prediction of academic achievement; rather, past academic performance in high school was a better predictor of college achievement. Also, Lindsay and Althouse reported a non-significant correlation between the Academic Achievement scale and college grade point averages. They warned that the Academic Achievement scale should be used with care when predicting college achievement. The new AOR, as described by Johansson in the SCII Manual, may just be "new wrapping for an old and questionable product."

This particular study was a further evaluation of how useful the AOR scale might be in assisting college counselors in advising students regarding their academic-vocational plans. The study, however, was done with a mixture of college students as typically seen by the guidance counselor, including men, women, freshmen, sophomores, juniors, and seniors. If the AOR is a valid predictor of academic persistence and grade point average, then counselors could well use such a screening device to aid, in particular, students destined for failure.

METHOD

The sample consisted of 148 college men and women (76 males, 72 females), aged 17 to 45, who had requested interest testing at the Northern Kentucky University Testing and Psychological Services Center. Nearly all of the sample included college-aged individuals (17-23 years of age). Testing with the SCII was done with these students prior to their beginning a semester of study or early during that semester. At the end of the semester, data were collected for each student concerning his or her semester grade point average and overall grade point average. Most of the individuals tested had two or more semesters of collegiate work, but 29 of the sample were completing their first semester of college.

The AOR score, semester grade point average (SGA), and overall collegiate grade point average (OGA) for all subjects were analyzed essentially in two ways: 1) intercorrelations and their levels of significance were obtained for the three variables mentioned and 2) the mean AOR scores for grade groupings 0.0-2.1, 2.2-2.9, and 3.0-4.0 were evaluated via analysis of variance for both SGA and OGA.

RESULTS

Table 1 shows the intercorrelations for AOR, SGA, and OGA, and the means and standard deviations for each variable. The correlations for (AOR and SGA) and (AOR and OGA) are very low positive values which are observed in all but one case to be not

significantly greater than zero (.05 level). The correlation between AOR and OGA for females is significant at the .02 level, while the relationship between AOR and SGA remains non-significant. For all three groups (all students, males, and females), the best predictor of a student's OGA was SGA, and the best predictor of SGA was OGA. The data was then broken down into three grade

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Insert Table 1

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groupings: a) 0.0-2.1, b) 2.2-2.9, and c) 3.0-4.0, first for SGA and then OGA. The mean AOR scores, group sizes, and standard deviations for SGA and OGA are outlined in Table 2. Johansson [7] stated that higher average scores on the AOR correspond to higher

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Insert Table 2

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educational persistence. He further stated that individuals with advanced degrees [these students usually have high grade point averages] score high on the scale (high 50's and greater) while high school dropouts [these individuals frequently perform poorly academically] tend to score less than 30. The mean AOR scores across SGA were analyzed by an analysis of variance, and then the mean AOR scores across OGA were similarly analyzed. The analysis of variance for the mean AOR scores across the three SGA groups resulted in an F-value of .54, and the similar analysis for OGA resulted in an F-value of 1.59. Both F-ratios are not significant values (F at .05=3.06, [5]), indicating no significant differences between the three mean AOR scores for SGA and OGA.

TABLE 1

Intercorrelations Betwen AOR, SGA, and OGA for College Men and Women

All Students	SGA	OGA	Means	S.D.
AOR	.08 (.34)*	.14 (.09)*	40.57	14.10
SGA		.91 (.0001)***	2.51	.99
OGA			2.46	.86
Males only				
AOR	.004 (.98)*	.02 (.86)*	40.03	14.12
SGA		.89 (.0001)***	2.32	1.00
OGA			2.26	.88
Females only				
AOR	.15 (.22)*	.27 (.02)***	41.14	14.15
SGA		.92 (.0001)***	2.71	.96
OGA			2.66	.79

*One-tailed tests of significance.
**Significant at the .05 level.

TABLE 2

Means and Standard Deviations for Grade Groups (0.0-2.1), (2.2-2.9), and (3.0-4.0) for SGA and OGA

		0.0-2.1	2.2-2.9	3.0-4.0
SGA	n	50	41	57
	$\bar{X}$	39.76	39.44	42.09
	S.D.	14.36	14.75	13.49
OGA	n	55	50	43
	$\bar{X}$	39.62	38.88	43.74
	S.D.	14.33	13.60	14.17

DISCUSSION

The AOR scale failed to prove with this sample that it would be a totally reliable predictor of college persistence with novice and experienced students. There were no significant differences found between the mean AOR scores for college students functioning academically at a low, average, or even high level. The AOR score seems to be an easily manipulated value, and one which might reflect fantasies or socially acceptable thoughts but not necessarily "real" performance. This sample included a few low functioning students who fancied themselves to be scholars and who obtained extremely elevated AOR scores, and it also included some excellent students who obtained extremely low AOR scores. Lindsay and Althouse [9] stated that college achievement is more directly related to past indices of grade-getting behavior than to interest patterns associated with good scholarship. This study supported this general idea, in that, SGA and OGA were found to be the best predictors of each other.

Regarding the usefulness of the AOR for predicting grade point performance of either a short-term or long-term nature, the results, in general, support the idea that the AOR is not useful. In one case though, the AOR scores for females proved to be significantly related to OGA.

The AOR score and its uses need further study before any counselor can use it with complete confidence with either novice or experienced college students. The description of the AOR as presented by Johansson [7] seems to be poorly founded. Perhaps

the equivocal findings relating grade point averages and the Academic Achivement scale promoted the change in name to Academic Orientation. However, the suggestions presented by Johansson in the SCII Manual seem to be essentially dealing with grade point averages. He states that a person scoring between 31 and 39 on the AOR probably possesses enough academic persistence to endure two years of college. He assumes that a poorer student should pursue a two year program. The data as presented in this study indicates that such a clear delineation cannot be made between poor and excellent students. Also, it is conceivable that a highly motivated, good student who wishes to pursue only a two year college program could obtain an elevated AOR. In essence, the value of the AOR as a predictor of college persistence is very questionable, and until more research is undertaken, counselors using the SCII's AOR scale are advised to proceed with caution.

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